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of pedestrian survey of approximately 20% of the study area. As a result of the survey, one new site was identified and seven previously reported sites were revisited, two of which were redefined. In addition, three sites previously reported in the project area could not be relocated, and portions of three parcels were found to be encompassed within the National Historic Site boundaries of the Cahokia Site. Identified prehistoric components ranged from Middle Archaic through Mississippian. The significance of these findings is discussed and statements of potential impact and recommendations are provided.

ST. LOUIS DISTRICT CULTURAL RESOURCE
MANAGEMENT REPORT NUMBER 2

A Cultural Resource Survey of Ten Proposed
Dry Detention Basins in the Harding
Ditch Area of St. Clair County, Illinois

Contract No. DACW43-82-M-2044

by

Brad Koldehoff, Christy L. Wells and William I. Woods
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ABSTRACT

This report describes the results of a cultural resource survey of ten parcels of land proposed for development as dry detention basins in the Harding Ditch area of St. Clair County, Illinois. The study was conducted by Southern Illinois University at Edwardsville under the auspices of the United States Army Corps of Engineers, St. Louis District. The study area consisted of ca. 1,880 acres situated in the eastern American Bottom and adjacent uplands. The field investigation was conducted in Spring 1982 and consisted of pedestrian survey of approximately 20% of the study area. As a result of the survey, one new site was identified and seven previously reported sites were revisited, two of which were redefined. In addition, three sites previously reported in the project area could not be relocated, and portions of three parcels were found to be encompassed within the National Historic Site boundaries of the Cahokia Site. Identified prehistoric components ranged from Middle Archaic through Mississippian. The significance of these findings is discussed and statements of potential impact and recommendations are provided.

ACKNOWLEDGEMENTS

The 1982 field reconnaissance of portions of the ten proposed detention areas in the Harding Ditch area was supported by the U. S. Army Corps of Engineers, St. Louis District, under Contract No. DACW43-82-M-2044. The assistance provided by Mr. Terry Norris, District Archaeologist, during the course of the project is gratefully acknowledged.

In addition to the authors, project personnel included Mr. Steve Rekas. A special thanks is extended to Mr. Larry Kinsella of Fairview Heights, Illinois, who generously pointed out sites located near parcel No. 14 and guided us to excellent glacial till exposures in Little Canteen Creek. The authors would also like to express their appreciation to the numerous landowners who allowed us to survey on their land. Finally, Ms. Diane Whitley is thanked for her excellent typing of this manuscript.

INTRODUCTION

The following report describes the methods and results of a cultural resource survey and literature review of ten proposed dry detention basins in St. Clair County, Illinois, conducted by Southern Illinois University at Edwardsville, under Contract No. DACW43-82-M-2044 with the United States Army Corps of Engineers, St. Louis District. The project area consists of approximately 1880 acres situated in the eastern portion of the American Bottoms and adjacent uplands extending to the south of Interstate 55/70 (Figure 1). Project goals included identification and delineation of cultural resources present within a 20% stratified sample of the study area (Table 1). The 20% sample was an ideal to be approached depending on landowner permission, ground surface visibility, and likelihood of encountering cultural resources. Specific results of sampling strategies are provided for each parcel. Specific contractual requirements can be found in the Scope of Work and subsequent modification included in this report as Appendix 1.

This report has been prepared in accordance with the provisions of the Scope of Work. Following this introductory section, the environmental setting of the study area will be presented. In sequential order, additional sections will discuss project methodology, survey results, statements of site significance, and potential impacts and recommendations.

Table 1. Parcel Coverage Data

<u>Parcel Number</u>	<u>Parcel Name</u>	<u>Approximate Total Acreage</u>	<u>Acreage Covered</u>	<u>Proportional Coverage</u>
1	Canteen Creek Detention Area	300	70	23%
2	Caseyville Detention Area	110	37	33%
3	Between B & O R. R. and Black Lane Detention Area	100	28	28%
4	Between Forest Blvd. and I-64 Detention Area	390	143	36%
5	Schoenberger Creek Lake No. 1	250	20	8%
6	Schoenberger Creek Lake No. 2	60	25	41%
7	Schoenberger Creek Detention Area	90	30	33%
8	Little Canteen Creek Lake	210	23	14%
9	Powdermill Creek Lake	130	23	18%
10	Canal No. 1 Detention Area	240	42	17%
Totals		1880	448	24%

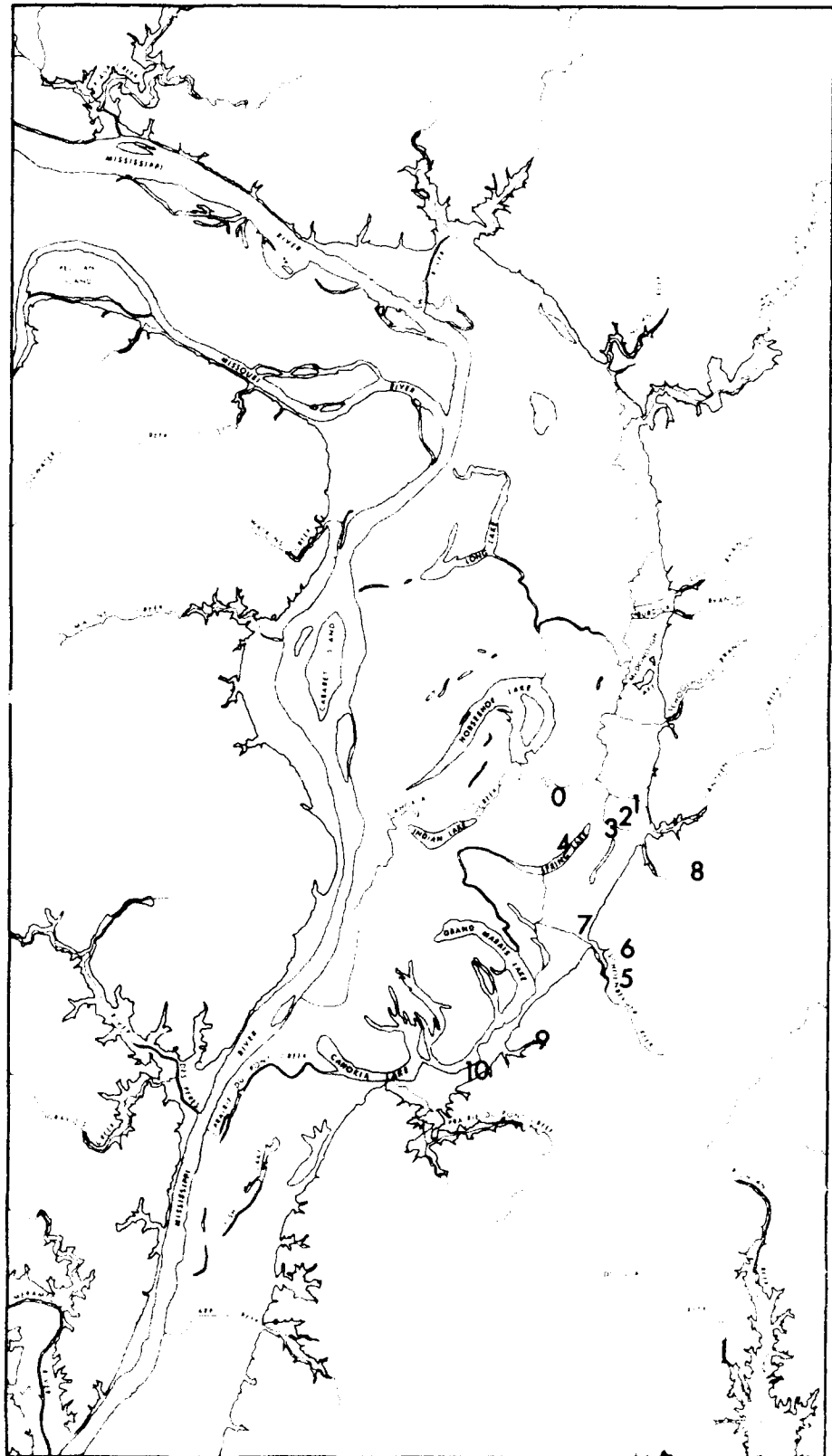
ENVIRONMENTAL SETTING

The Harding Ditch Project study area is located in the American Bottom and adjacent upland in St. Clair County, Illinois. Six of the ten parcels (Nos. 1-4, 7, 10) lie within the Mississippi River floodplain adjacent to the colluvial slopes of the bluff or in former channel scars characterized

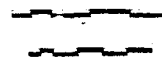
Figure 1. Parcel Location

<u>Map Symbol</u>	<u>Identification</u>
0	Cahokia site
1	Parcel No. 1
2	Parcel No. 2
3	Parcel No. 3
4	Parcel No. 4
5	Parcel No. 5
6	Parcel No. 6
7	Parcel No. 7
8	Parcel No. 8
9	Parcel No. 9
10	Parcel No. 10

AMERICAN BOTTOM



THE MISSISSIPPI RIVER AND LAKE OF THE
 LOWER MISSISSIPPI VALLEY
 BY THE U.S. GEOLOGICAL SURVEY



1

by low, flat, clayey areas bordered by natural levees, point bars, and ridges. As these channels were filled in, lakes, ponds, marshes, and swamps resulted. The Spring Lake Meander Scar and the Grand Marais Meander Scar are transected by two of the parcels, and chronologies have been proposed for these as a result of archaeological investigations (Munson 1974, Linder et al. 1978). Elevations within the parcels range from 400 feet MSL in the Spring Lake Meander Scar to 460 feet MSL in the area of colluvial and alluvial fan deposition of the Schoenberger Creek Detention Area. Drainage and permanent water sources are provided primarily by Spring Lake, Crooked Lake, Canteen Creek, Schoenberger Creek, and Powdermill Creek. Although drainage conditions have improved, standing water prohibited survey in several portions of the floodplain parcels.

Several soil types are represented in these lowland parcels. The most widespread are the nearly level, well-drained silt loams of the Haymond and Worthen series; the level, somewhat poorly drained silt loams of the Dupo and Littleton series; the level, poorly drained silty clay loams of the Gorham and Riley series; and the level, poorly drained silty clay of the Darwin series. These soils were formed in silty alluvial sediment under a native vegetation ranging from trees and grasses that thrive in wet conditions to hardwood forests (Wallace 1978). Currently, the lands within the parcels lying on the floodplain are developed, covered by marshes or standing water, or cropped.

The remaining four parcels (Nos. 6-7, 8-9) are situated in the dissected upland to the east of the floodplain. These areas encompass portions of Schoenberger, Little Canteen, and Powdermill Creeks, along with the steeply sloping, densely wooded stream valleys. Elevations within the upland parcels range from 460 to 560 feet MSL. Soils within these parcels consist of either Wakeland or Haymond silt loams along the creek beds, and Fayette and/or Sylvan-Bold silt loams on the surrounding slopes and ridges. Both of these well-drained soils formed in thick silty material under a hardwood forest (Wallace 1978).

METHODOLOGY

Preliminary research included the literature review, briefly discussed below, and a records search of the Illinois Archaeological Survey site files to identify previously reported sites in the study area. Field activities began with land clearance by personal visits to landowners and tenants and determination of the areas to be surveyed. Selection of these areas was based on the existence of previously determined sites, favorable conditions of ground surface visibility and splash erosion, and access permission by the landowner.

Once specific areas to be surveyed were determined, a pedestrian survey was employed. In the parcels occupying the American Bottom, two people walked at 15 meter intervals until the limits of a site were identified, at which point a selective collection of temporally and functionally diagnostic materials was performed at five meter intervals.

In the upland parcels, primarily creeks were walked because their cutbanks and gravel and sand bars provided a greater area of visibility than in the dense vegetation that covered the floodplain, terraces, and ridge slopes. On occasion, cultivated fields were encountered and procedures discussed

above for the American Bottom parcels were followed. Portions of floodplain, terraces, and slopes were also walked, but the vegetation in these areas restricted the survey to locating possible mounds and examining eroded slopes and animal trails for possible indications of sites.

Since a good deal of time would be spent walking creeks and examining their cut-banks and gravel bars, it was decided that notes should be kept on the presence of glacial till and the percentage or availability of chert cobbles within the till. Samples of chert cobbles expressing the range of size and quality were collected. The significance of glacial cherts as a source of aboriginal raw material has yet to be addressed in the American Bottom region. Results of the chert availability survey will be briefly discussed in Appendix 5.

Each area walked, whether in the uplands or American Bottom, was described in a Field Walkover Report, which included: ground cover, surface preparation, surface wash, visibility range, and location on a sketch map. Areas surveyed were also recorded on 7.5' U.S.G.S. topographic quadrangles. Each site located was given an SIUE field number and described on a Site Survey Form, including collection interval, estimated area of scatter, density range in square meters, materials observed, materials collected, site topographic position, and modern disturbance to the site area. The limits of each site were sketched on the Site Survey Form and defined on the appropriate U.S.G.S. topographic quadrangle. A photographic log was also kept of the surveying procedures and site areas.

When surveying was completed, materials were washed, labeled, and inventoried in preparation for analysis. Ceramic materials were described according to temper, surface treatment, type of decoration, and vessel portion represented, as well as typological classification and temporal affiliation. Lithic materials were identified functionally on the basis of morphological characteristics and observable use wear, while their temporal affiliation was based on how well they conformed to established types. Materials were also assigned to known chert types. Detailed information on specific procedures followed in the processing and curation of materials recovered can be found in Denny and Woods (1981:83-133).

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

The Harding Ditch Project study area lies within and adjacent to the American Bottom, a region well known in the literature of North American archaeology, for it contains the largest mound group north of Mexico, the Cahokia site (Ms-2, S-34). Cahokia and its related mound groups have attracted a great deal of interest since their discovery and description by early American travelers and scholars. Some of the first professional work done in the area was conducted by Thomas (1894) and Bushnell (1922), but their investigations were limited to mound sites. The first comprehensive survey was conducted by Griffin and Spaulding (1951) in 1949 and 1950; they examined mound groups and non-mound sites in the American Bottom proper, as well as the adjacent uplands. Beginning in 1961 numerous surveys have been conducted in the American Bottom and adjacent uplands. They are exemplified by Harn (1971) and Munson (1971), the Historic Sites Surveys (Denny and Anderson 1974, 1975; Porter 1971, 1972, 1973), and the surveys of proposed highway alignments for FAI-270 (Kelly et al. 1979) and FAP-413 (Linder et al. 1978).

Previous archaeological work within the Harding Ditch parcels is primarily limited to those occupying the floodplain of the Mississippi River. The upland parcels (Nos. 5-6, 8-9) have no recorded sites within the boundaries. Archaeological surveys have been conducted in their general vicinity, but sites have only been recorded for the ridge crests overlooking the incised stream valleys that comprise most of each parcel.

As indicated above, most of the floodplain parcels have been well surveyed. The early work by Griffin and Spaulding (1951) only recorded one site in the Harding Ditch Project area, while Harn's (1971) 1961 and 1962 survey of the American Bottom recorded numerous new sites and revisited known sites in three parcels (Nos. 4, 7, 10). As part of the University of Wisconsin-Milwaukee Cahokia Project, Brandt (1972) revisited known sites and recorded new sites in the area surrounding the Cahokia site in Madison and St. Clair Counties. Brandt revisited several sites located within Parcels No. 4 and 7. Denny's (1973) Harding Ditch survey for the U. S. Army Corps of Engineers also revisited sites located within Parcels No. 4 and 7. By far, the FAI-270 project provides the greatest amount of site location data. In order to assist in the selection of the FAI-270 alignment, a 1975 survey by Denny and Frisbie (1975) was conducted to establish the eastern boundary of the Cahokia site, a National Register property. Denny and Frisbie located two new sites that fall within the project area, one in Parcel No. 2 and one in No. 3. The later intensive survey of the FAI-270 alignment (Kelly et al. 1979) revisited sites and/or located new sites in Parcels No. 1, 4, and 7. It should also be noted that a survey for a proposed FAI-270 borrow pit, within the southwestern portion of the upland Parcel No. 5, located several sites on ridges adjacent to the parcel, but none within the parcel itself. It is clear that the floodplain parcels for the most part are well surveyed, with sites having been revisited numerous times over the past ten years.

SURVEY RESULTS

Parcel No. 1. Canteen Creek Detention Area

Parcel No. 1 consists of approximately 300 acres adjacent to the colluvial slope, off the bluffs, with Canteen Creek on the north, the Penn Central ROW on the south, and Exermont, Illinois ca. 350 meters to the west. The parcel contains elevations ranging from 420 to 430 feet MSL, with Littleton, Worthen, and Dupon silt loam soil types (Wallace 1978: Sheets 3, 4). Most of this parcel was surveyed by FAI-270 personnel, who reported one site, S-429 (Kelly et al. 1979). The site was described as a series of Late Woodland/Mississippian camps or hamlets, on the basis of material collected. In addition, portions of the southwestern corner of this parcel are contained within the boundary of the Cahokia Mounds National Historic Site (Figure 7).

Approximately 70 acres (23%) of the parcel were surveyed by SIUE crews (Figure 2, Table 1). Most areas not under tall wheat were surveyed in an attempt to identify the limits of S-429. All but a small northern portion of the site as defined was under wheat at the time. No cultural materials were observed in the recently cultivated northern section. To the south, in areas not covered by the FAI-270 survey, three very light concentrations of chert flakes were encountered. Since a large part of the intervening area was covered in wheat and no topographic features separated the materials, these small sites were combined with S-429 and the limits of the site remapped.

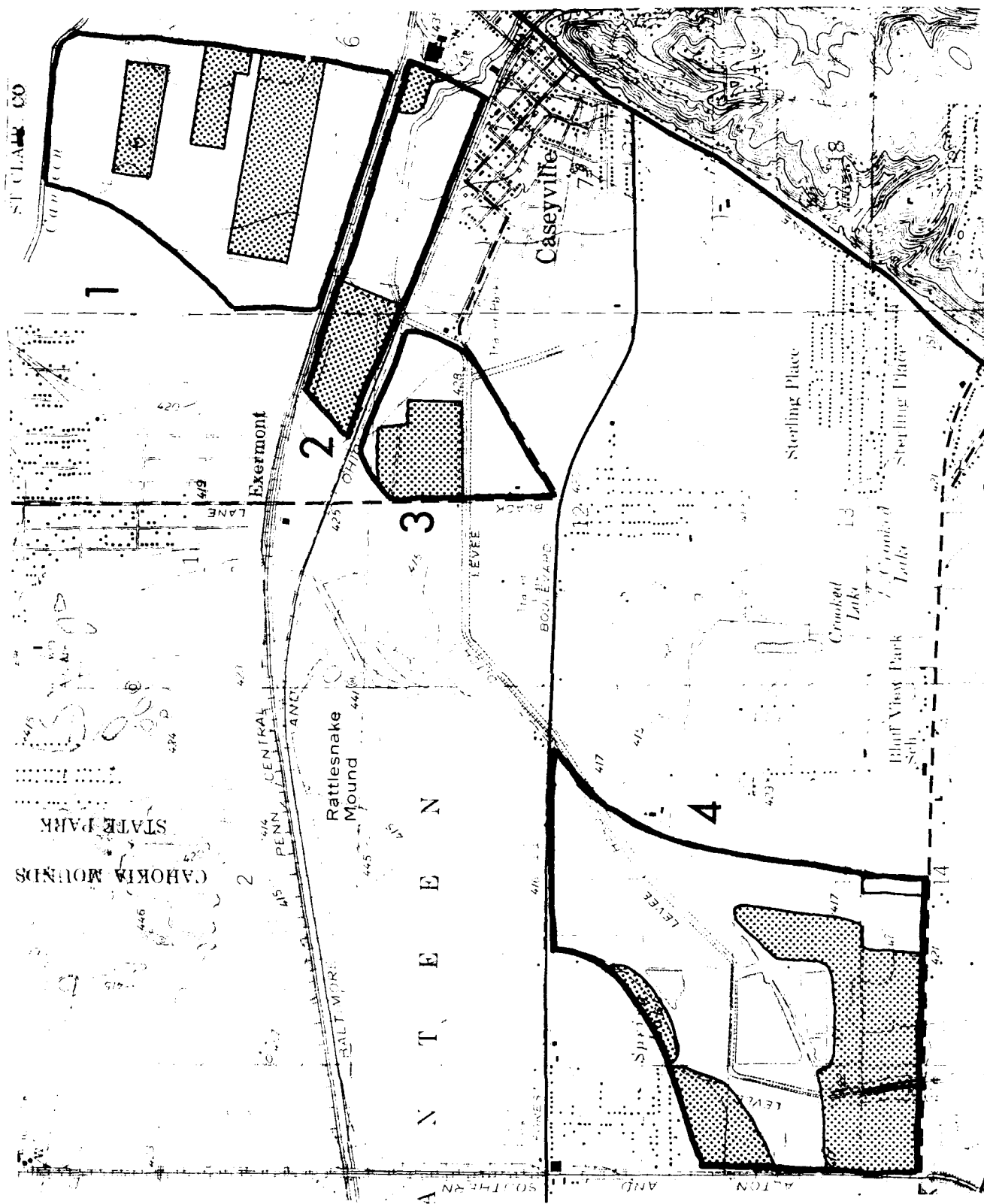


Figure 2

Pedestrian Survey Coverage: Parcel Nos. 1-4

Parcel No. 2. Caseyville Detention Area

This parcel encompasses approximately 110 acres adjacent to the colluvial slope of the bluff on the east, the Spring Lake Meander Scar on the south, and the Crooked Lake Meander Scar on the west, and is transected by the Harding Ditch. The Wakeland silt loam soil type is indicated for the parcel area (Wallace 1978: Sheet 3) with a range in elevation between 420 and 430 feet MSL. Construction of Black Lane to the east, the Penn Central ROW to the north, the Baltimore and Ohio to the south, and the Harding Ditch have all caused disturbance to the parcel. Eastern portions of the parcel were surveyed by Denny and Frisbie in 1975, with no sites reported. Current SIUE crews walked approximately 37 acres (33%) of the parcel and found no evidence of prehistoric occupation (Figure 2). However, the western one third of this parcel is contained within the boundary of the Cahokia Mounds National Historic Site (Figure 7).

Parcel No. 3. Between B & O R.R. and Black Lane Detention Area

This parcel encompasses approximately 100 acres of relatively flat land bordered on the north by the B & O ROW, on the west by Black Lane, and on the south by the Spring Lake Meander Scar. Harding Ditch transects the parcel and forms the eastern boundary. Elevations within the parcel range from 415 to 420 feet MSL, and soil types include Wakeland, Dupo silt loam, and Gorham silty clay (Wallace 1978: Sheets 3, 4). A large portion of this parcel was surveyed by Denny and Frisbie, who reported one site (S-460) in roughly the center of the parcel (1975:31-32). The site is described as a Middle Archaic and Late Woodland village. In addition, almost the entire parcel is contained within the boundaries of the Cahokia Mounds National Historic Site (Figure 7).

The SIUE crew walked 28 acres (28%) of the parcel north of Harding Ditch (Figure 2). The remainder could not be surveyed due to tall corn in the west and building and scrubby ground cover in the south. S-460 was located as originally defined. In addition, two field sites were combined with it and the site remapped to enlarge the boundaries to the west and north.

Parcel No. 4. Between Forest Blvd. and I-64 Detention Area

As its name implies, Parcel No. 4 is situated between Forest Blvd. on the north and I-64 to the south. More significant is the parcel's position at the southern boundary of the Cahokia site, with Rattlesnake Mound located a half mile to the north. The elevation in this area ranges from 400-420 feet MSL with the lowest elevations being found in the remnants of the Spring Lake Meander Scar, which occupies the northwest one half of the parcel. The highest area is a series of ridges which form a point bar system in the southeast corner of the parcel.

This parcel encompasses approximately 390 acres; 143 acres (36%) were covered during the survey (Figure 2). The crop cover and the natural topography and drainage greatly affected which portions of the parcel could be covered by a pedestrian survey. The northwest one half was composed primarily of

several large lakes, marshy areas, and wheat fields. Two sites were previously recorded for this area, S-44 and S-45. Both sites were located in 1961; S-45, the Forest Blvd. site was originally a portion of the Spring Lake site (ISMV 135) reported by Harn (1971:24). In 1972 two portions of the Spring Lake site were separated by Brandt, who established the Forest Blvd. site at that time. Wheat and standing water prohibited relocating S-44; however, a portion of S-45 was planted in corn and was surveyed. Brandt's surface collection of S-45 recovered Late Woodland/Mississippian materials which corresponds well with the material collected during the present survey.

The southeast one half of Parcel No. 4 had crop cover of predominantly beans and corn, but two wheat fields occupied the extreme southeastern limits. Excellent splash erosion and visibility near 100% allowed all three previously recorded sites to be located. S-316, the Axis site, is another portion of Harn's Spring Lake site that was redefined by Brandt. The site was also visited by the Harding Ditch survey (Denny 1973:21) and the FAI-270 survey (Kelly *et al.*). Several chert flakes and chunks were observed during the present survey, while previous surveys recovered flakes, biface fragments, and one Archaic projectile point.

The remaining sites, S-72 and S-465, both contain extensive Late Woodland and Mississippian components, with S-465 also possessing an Archaic component. The Olszewski site (S-465) was reported during the FAI-270 survey (Kelly *et al.* 1979:95). The present survey recovered Late Bluff and Mississippian ceramics, large numbers of hoe fragments and hoe flakes, and a Merom point (Plate 1). The southern portion of the site falls within the FAI-270 alignment and was tested in 1978 by the University of Illinois (Milner 1979:69). Recently, earthmoving activities exposed over four dozen features at the site including numerous structural remains. Further discussion of this matter can be found in Appendix 3.

The Rolle site (S-72) was first reported by Throop (1928:40); later, the site was visited by Harn in 1961, James Anderson in 1966, Brandt in 1972, Denny's Harding Ditch survey in 1973, and the FAI-270 survey in 1976. A small portion of the site (0.8 hectare) will be affected by the FAI-270 alignment (Kelly *et al.* 1979:74). When the site was surveyed for the present project only a small percentage of the site was not planted in wheat. This portion consisted of the western edge of a corn field, in which large numbers of Late Bluff and Mississippian ceramics and chert flakes were observed, but not collected. The Rolle site was also tested by the University of Illinois of Illinois in 1978 (Milner 1979:69).

Parcel No. 5. Schoenberger Creek Lake No. 1

This parcel is situated in the uplands 1.5 miles from the bluff edge and encompasses a branch of Schoenberger Creek known as Negro Hollow. The floodplain of the creek at its lowest is 470 feet MSL, while the highest elevation in the parcel is a ridge slope measuring 560 feet MSL. Approximately 250 acres are contained in Parcel No. 5, 20 acres (8%) of which were covered during the survey (Figure 3). As discussed above, the upland parcels are composed of upland stream valleys covered with dense vegetation, presenting far from ideal conditions for locating archaeological sites with pedestrian survey methods.

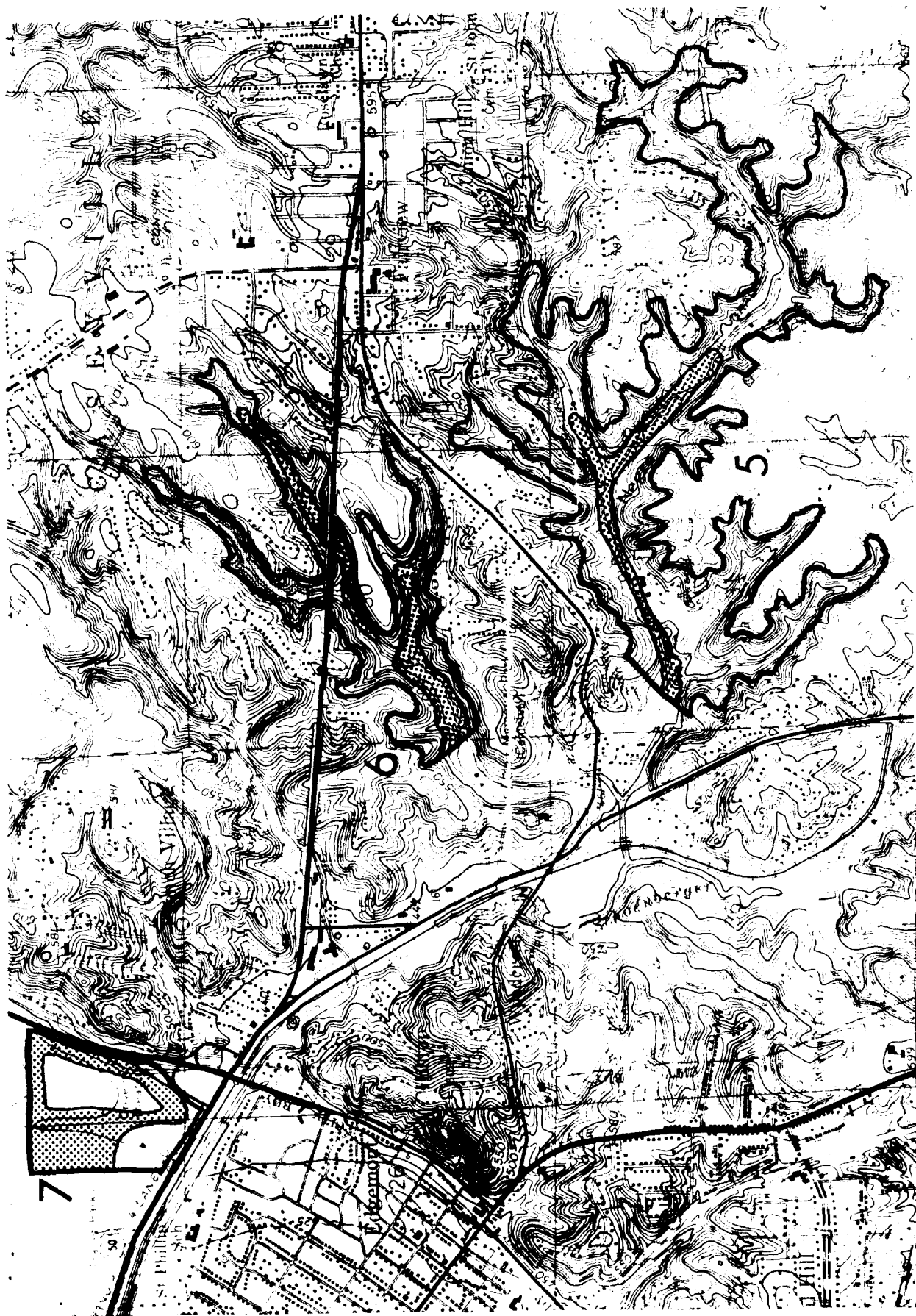


Figure 3

Pedestrian Survey Coverage: Parcel Nos. 5-7

Only portions of the western half of Parcel No. 5 were walked because visibility was extremely poor (0-10%) due to thick vegetation, and the stream channel itself was unfit for walking, since mining spoil and processed human waste from a sewage plant drained through the creek. Also, old railroad grades followed both branches of the creek throughout the parcel length. Further modern disturbances consisted of several old shale mines and clay pits, an area of soil borrowing, and an abandoned factory site. The creek was checked for glacial till deposits, specifically chert cobbles, but none were observed. An archaeological survey had been conducted in the southwestern portion of the parcel, which had been selected for a proposed FAI-270 borrow pit. The survey recorded several sites on the ridge tops overlooking the stream valley, but as with the present survey no sites were identified at lower elevations.

Parcel No. 6. Schoenberger Creek Lake No. 2

Located across a long, narrow ridge from Parcel No. 5, Parcel No. 6 encompasses approximately 60 acres, 25 acres (41%) of which were covered by the survey (Figure 3). The lowest floodplain elevation is 480 feet MSL, while the highest elevation in the parcel is a slope measuring 560 feet MSL. Two cornfields occupied the floodplain in the southwestern end of the parcel. The northwestern branch of the creek is entirely inundated by a modern lake, and an oak hickory forest with thick underbrush covers the remainder of the parcel, with a visibility range from 0-10%. The creek channel had 100% visibility; cut-banks and gravel bars were examined for sites, but none were located. Major portions of the creek bed have cut into the glacial till, exposing primarily silts, sands and clays with only occasional chert cobbles present. No previously recorded sites fall within the parcel; however, the Lab Woofie site (Prentice and Mehrer 1981), a Mississippian farmstead, was excavated on a ridge too steep for cultivation, a half mile to the southwest. The Lab Woofie site (S-346) illustrates the potential for steep, forested ridges within the parcel to contain prehistoric occupations.

Parcel No. 7. Schoenberger Creek Detention Area

The Schoenberger Creek Detention Area lies directly north of the present channelized course of Schoenberger Creek as it enters into the American Bottom. The parcel ranges in elevation from 425 to 460 feet MSL and is an area of both colluvial and alluvial fan deposits. Approximately 90 acres are contained in the parcel; 30 acres (33%) were covered in the survey (Figure 3).

A wheatfield, an automobile dealership, and the French Village Drive-In Theater occupy the southern limits of the parcel; the remainder of the parcel was planted in beans and horseradish. The latter area was first walked when splash erosion was poor. After a half inch of rain, the area was rewalked, but on both occasions the site previously recorded in this parcel was not located. The Walrus site (S-318) is reported to enter into the northwestern 1/3 of the parcel. The entire site was initially reported by Harn (1971:23) as part of the Crooked Lake #2 site; later, it was surveyed by Brandt in 1972 and Denny (1973), and apparently portions of the site were visited

by the FAI-270 survey. The site is reported as being scatters of Archaic and Late Woodland material. The inability to locate the site by the present survey may be a result of its diffuse nature.

Parcel No. 8. Little Canteen Creek Lake

Situated in the uplands 1.5 miles from the bluff edge, Parcel No. 8 occupies a major branch of Little Canteen Creek. It encompasses approximately 210 acres. Thirty acres (14%) were covered during the survey (Figure 4). The entire drainage was forested and contained thick underbrush, except for one cultivated field in the floodplain. The elevation of the parcel ranges from 470 to 560 feet MSL, with most stream channels deeply entrenched, producing steep slopes and rough terrain.

No sites have been previously recorded in the parcel; nevertheless, Mr. Larry Kinsella, of Fairview Heights, Illinois, reported several sites which occupy ridges overlooking the parcel. Mr. Kinsella also reported the presence of large quantities of glacial cobbles in the nearby streams. During the walkover, Mr. Kinsella accompanied the field crew through the southernmost branches of the creek. These localities produced large quantities of glacial erratics, of which chert cobbles represented 20-30%. Throughout most of the stream courses in the parcel, a silty glacial till, containing concentrations of cobbles, forms the stream bed. At some large cut-banks the full sequence of local sediments could be seen: Illinoian till overlain by Wisconsin loess in which a recent forest soil has developed. Parcel No. 8 contained the heaviest concentration of chert cobbles and the largest cobbles in the project area. Of special interest is the fact that numerous chert hammerstones of glacial till chert have been recovered from a nearby site (Larry Kinsella, personal communication, 17 May 1982).

Parcel No. 9. Powdermill Creek Lake

The Powdermill Creek parcel is located in the uplands one mile from the bluff edge. It encompasses 130 acres of the Powdermill Creek drainage, 23 acres (18%) of which were covered during the survey (Figure 5). The parcel has deeply dissected stream courses, steep slopes, and a range in elevation from 460 to 550 feet MSL. The western end of the parcel contained wheat fields and open forest, while the remainder of the parcel was covered with dense vegetation.

No archaeological sites were found and none have been previously reported within this parcel. Examination of the creek showed glacial till deposits, predominantly composed of sands, silts, clay, and small pebbles. Exposed in a portion of the creek bank was coal, shale, and cinder; the area appears to be an old mine dump or fill area for a railroad grade.

Parcel No. 10. Canal No. 1 Detention Area

Parcel No. 10 is located at the bluff base and is contained within the Grand Marais Meander Scar. The parcel encompasses approximately 240 acres, 42 (17%) of which were covered during the survey (Figure 6). The colluvial slope at

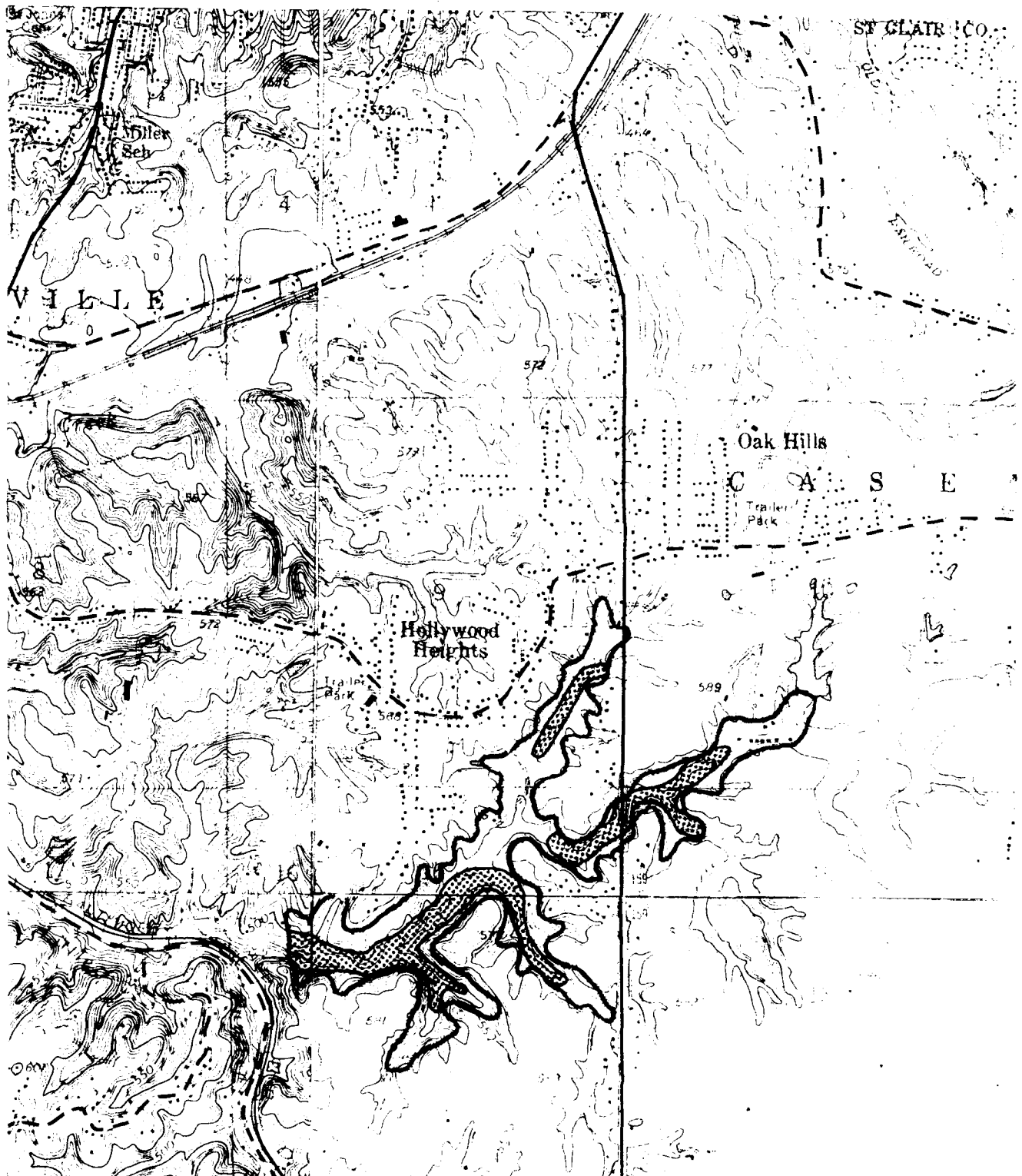


Figure 4

Pedestrian Survey Coverage: Parcel No. 8

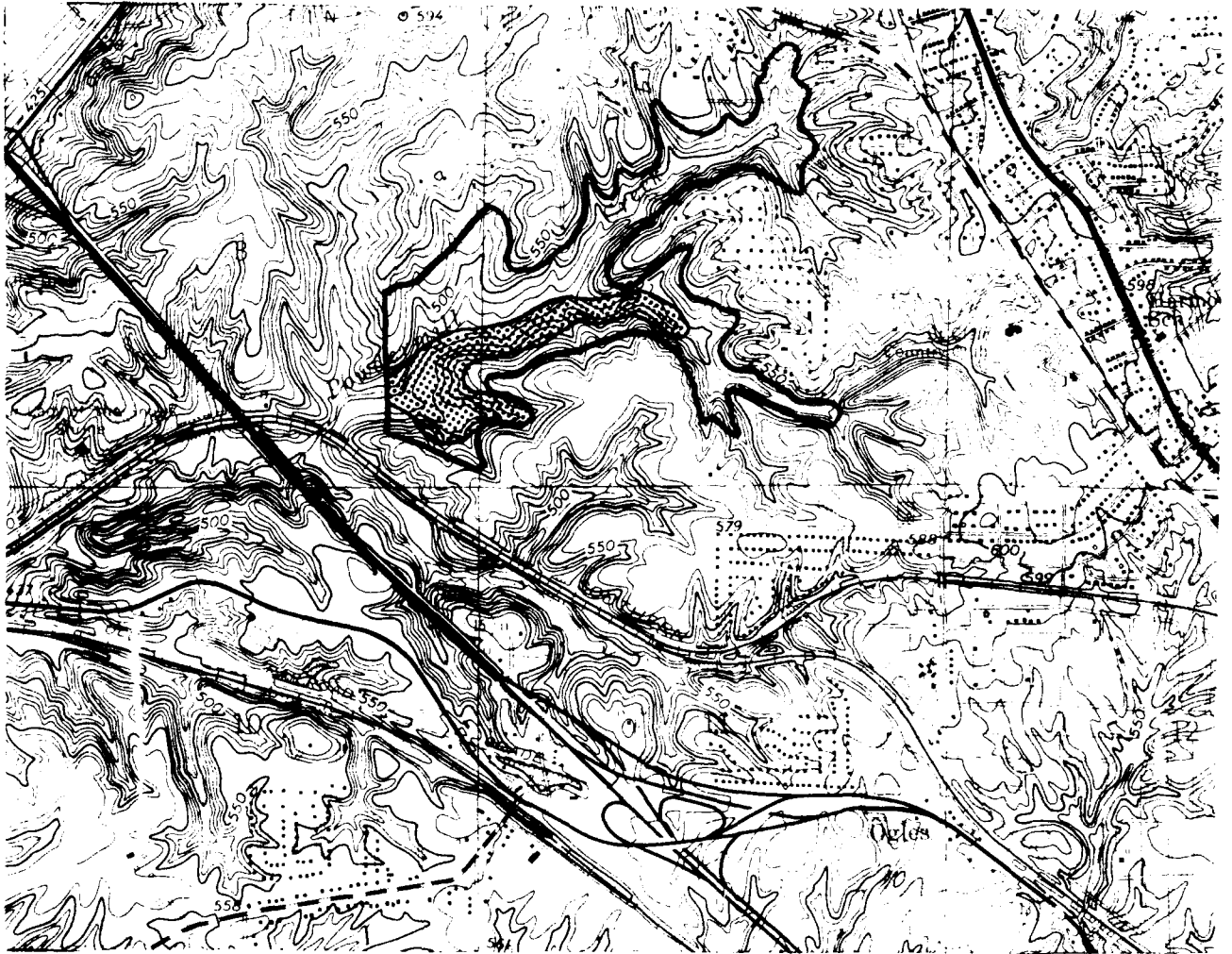


Figure 5

Pedestrian Survey Coverage: Parcel No. 9

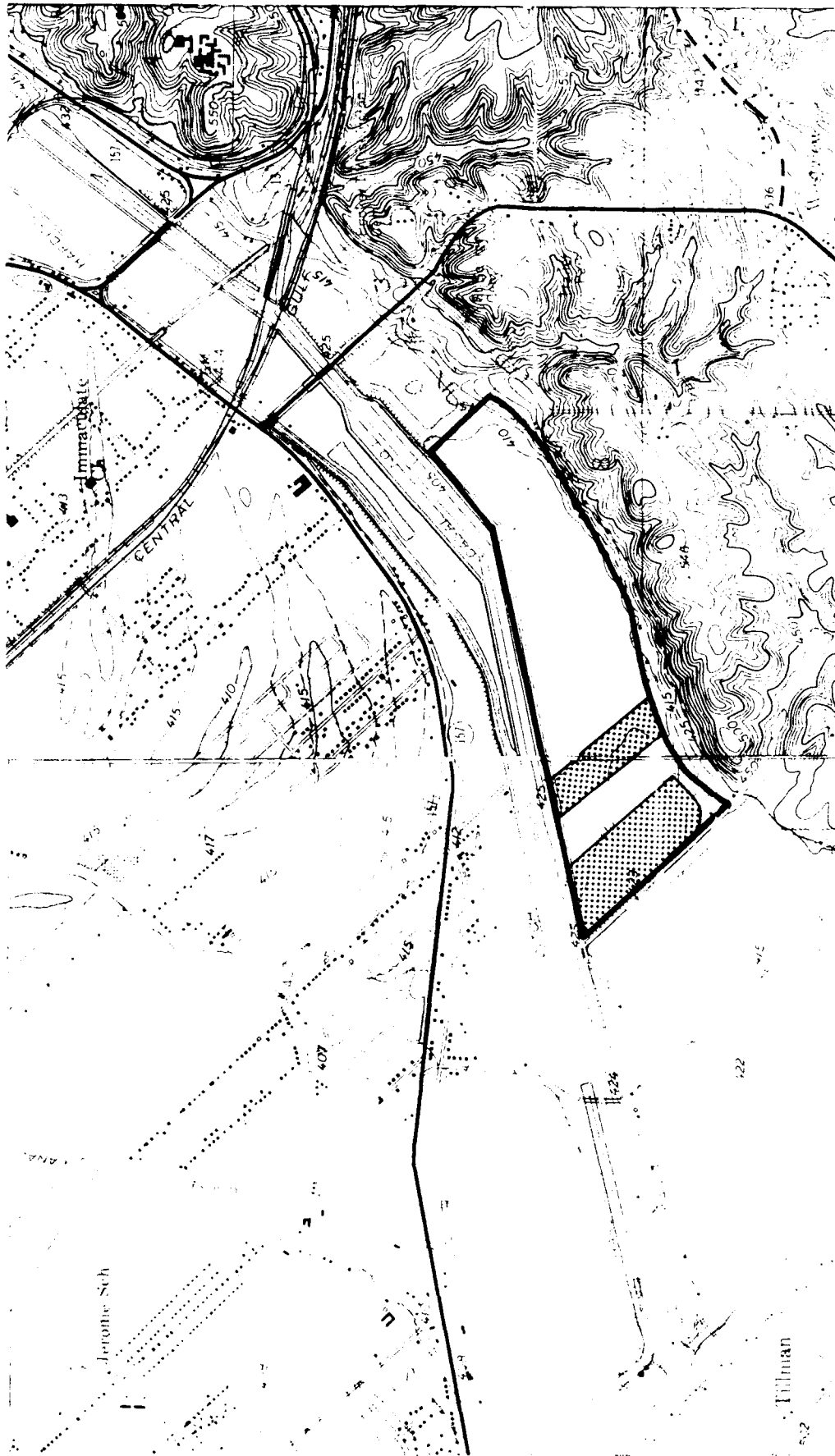


Figure 6

Pedestrian Survey Coverage: Parcel No. 10

the bluff base has a maximum elevation of 420 feet MSL, while the floodplain is 400 feet MSL at its lowest. The eastern 3/4 of this parcel was not surveyed for it was covered with 0.5 to 2.5 feet of water.

The western 1/4 of the parcel was planted in wheat and beans. The bean fields were walked when splash erosion was poor, then rewalked under good field conditions, and one site was located. The Vole site (S-724) is situated at the bluff base on the colluvial slope. Mississippian, Late Woodland, and Early Woodland materials were recovered (Plate 1). The site probably contains buried strata, since the majority of the material recovered came from the steepest portion of the slope where erosion, due to farming practices, was greatly accelerated.

The Booker T. Washington site (S-19) is the only previously recorded site in the parcel. In fact, only portions of Sections 4 and 5 of the site fall within the parcel. They were not revisited due to inundated field conditions. The Booker T. Washington site was located by Gregory Perino and recorded by Griffin in 1947. The site was revisited by Harn in 1961 (1971:32, 35). The site has been interpreted as a large Late Bluff and/or Fairmont Phase village.

SIGNIFICANCE

Basically, the criterion that would be utilized to assess the potential National Register eligibility of the cultural resources identified by the present investigation would be their research value, i.e. their likelihood of yielding information important in prehistory (see 36 CFR Part 60.4). Based on this standard, one site (S-34) is already a National Register property and ten sites (S-19, 44, 45, 72, 316, 318, 429, 465, 724) certainly appear to be significant resources.

The significance of the Cahokia site (S-34) cannot be overestimated. As the largest prehistoric settlement in North America to the north of Mexico, this community functioned as the highest order central place for the complex Mississippian culture and was the focus of economic, political, and religious activities for at least three centuries. As indicated above, the boundary of the Cahokia Mounds National Historic Site extends into Parcel Numbers 1-3 (Fowler 1978:7).

All except one of the ten sites which are judged to have a high potential for National Register eligibility contain multiple components (Table 2). Of the prehistoric culture periods of the local region only the Paleo-Indian, Early Archaic, and Middle Woodland appear to be absent. Clearly, such a continuum of settlement in relatively restricted area would be of great value for diachronic comparative studies of the local region, particularly the period of Late Woodland-Mississippian transition. There appear to be at least two types of prehistoric settlements present in the sample identified by the survey. Late Woodland and Mississippian villages and/or hamlets are marked by extensive distributions of lithic and ceramic materials which cover at least two hectares. In contrast, the limited, often diffuse, scatters of chert flakes and bifaces presumably represent Archaic occupations consisting of a series of small limited activity sites such as hunting

camps or collection stations or more intensive settlements which are largely buried. The fact that ceramics have been recovered from all but one of the sites would most likely indicate the presence of features, and features have already been identified for S-44, 45, 72, and 465. Mounds have also been reported for the former three sites and these may have been directly associated with the mound complex at the Cahokia site immediately to the north.

Table 2
Identified Components for Sites Deemed Significant

<u>Site Number</u>	<u>Identified Components</u>
S-19	Late Woodland: Late Bluff, Mississippian
S-44	Late Woodland: Late Bluff, Mississippian
S-45	Late Woodland: Late Bluff, Mississippian
S-72	Late Woodland: Late Bluff, Mississippian
S-316	Archaic
S-318	Archaic, Late Woodland
S-429	Late Woodland: Late Bluff, Mississippian
S-460	Middle Archaic, Late Woodland
S-465	Late Archaic, Late Woodland: Late Bluff, Mississippian
S-724	Early Woodland, Late Woodland: Late Bluff, Mississippian

Currently, S-34 is a National Historic Site and due to the established presence of features on S-44, 45, 72, and 465, these properties are deemed to be of National Register significance and a determination of eligibility should be sought. Although the remaining six sites (S-19, 316, 318, 429, 460, 724) have not as yet been demonstrated to contain features, it is felt on the basis of previous investigations in the region that they also contain significant data and do have a high probability of exhibiting features and/or buried living surfaces. In this regard, even disturbed sites which do not contain any intact subsurface cultural features have been found to be the sources of important research data (Talmage *et al.* 1977).

It should be noted that although no sites were identified within those areas surveyed in the lower portion of former meander scar areas, preservation of wood and possibly other organix materials, which are rarely recovered in uncarbonized form in local archaeological contexts, would have been promoted in the anaerobic, reducing medium of the waterlogged sediments deposited in the cut-off meander loops within the study area. Such items as canoes (Brose and Greber 1982), fishing and fowling implements, and miscellaneous habitation debris discarded into these depressions from adjacent settlements would be of great research value if adequately preserved. In addition,

the channel remnants would have provided excellent conditions for pollen accumulation and radiocarbon analysis could be utilized as aids for pre-historic environmental reconstruction.

RECOMMENDATIONS AND STATEMENT OF IMPACT

The object of the investigation described in this report was to identify archaeological sites within portions of the study area through selective pedestrian survey. Factors considered for the selection of areas to survey included ground cover, topographic features (e.g. rises in floodplain), and location of previously reported sites. As this was a specific, non-random, non-stratified survey, the results should be viewed as a guide to the types of archaeological sites present in the proposed detention basins and should only be utilized for general planning purposes.

In regard to potential impacts on the archaeological resources within the Harding Ditch area it would be useful at this point to review the criteria of effect and adverse effect as provided in 36 CFR Part 800.3. An effect occurs when an undertaking changes the integrity of location, setting, materials, or association of a property that contributes to its significance in accordance with National Register criteria. Destruction or alteration of all or part of a property is considered to be an adverse effect only if the property has been judged to be of national historic significance. Potential actions that would lead to adverse effects within the project area parcels could include, but are not restricted to, the following. Direct impacts could occur during facility development through borrowing, levee and embankment construction, channel widening, and roadway and other existing facility removal and relocation. After emplacement of the detention basins, alterations associated with hydrologic effects will take place. Containment will cause basin siltation which ultimately will require dredging or other forms of sediment removal. This coupled with spoil dumping could directly impact included cultural resources. Innundation could also cause adverse effects through erosional disturbance (Woods 1980; Woods and Denny 1980; Lenihan *et al.* 1981) and chemical and physical modification of archaeological remains (Lenihan *et al.* 1981).

At present the specific plans for development of the detention facilities are unknown. Therefore, the extent, nature, and distribution of potential impacts on the cultural resources present are unclear. Indeed, the identity, location, and National Register significance of the cultural resources of the project area have not yet been fully ascertained. In the absence of detailed plans for proposed facility development, it must be assumed that entire parcels may be impacted by detention basin construction, innundation, and other induced alterations and that adverse effects will occur. Under this assumption a number of recommendations are herein proposed. First, a total survey of all areas to be impacted should be performed. Techniques to be utilized would include pedestrian survey where conditions of surface visibility permit and shovel testing in other areas. In addition, coring and deep excavation units in the form of backhoe trenches should be emplaced in areas where there is a high probability of identifying buried cultural materials, features, or horizons. Following the survey, Phase II testing should be conducted on any sites which could be affected by proposed facility development in order to determine their subsurface integrity and potential

significance. Following testing a determination of National Register eligibility should be sought for all significant sites. In those cases where an adverse effect is contemplated for an eligible property two options would be available. In the first instance, alternatives could be considered which would result in avoidance of impact. These could consist of no undertaking or alternative sites, undertakings, or designs. The second option would take the form of mitigation through data recovery before the undertaking proceeded. Specific data recovery procedures to be utilized would be dependent on the detailed research design developed for each site.

Finally, it should be stressed that although a number of significant cultural resources have been identified through surface survey, the potential for buried sites within the parcels is felt to be quite high. Recent work in floodplain settings of the American Bottom at the Cahokia site (S-34) and the Lawrence Primas site (Ms-895) have demonstrated the existence of totally buried Late Archaic horizons (Benchley and DePudyt 1982; Nassaney *et al.* 1983) and a buried Mississippian community, respectively. Colluvial and alluvial deposition in the interior upland parcels and portions of those parcels adjacent to the bluffs would indicate that such buried sites could exist in these areas, too. Fortier *et al.* (1983) have recently reported on the deeply buried Early Woodland and buried Middle Woodland living surfaces at the Mund site (S-435) in a colluvial fan setting, Prentice and Mehrer (1981) have described the excavation of an unplowed Mississippian hamlet on a slope in the Schoenberger Creek valley, and another buried site has been documented immediately to the east of Parcel Number 10 where several large ground stone axes were recovered by WPA workmen when a drainage ditch was dug (Gregory Perino, personal communication, March 1982).

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Appendix 1

A Cultural Resource Survey
of Ten Proposed Detention Areas
in the Harding Ditch Area,
St. Clair County, Illinois

SCOPE OF WORK

1. Statement of Work. The work to be accomplished by the Contractor consists of furnishing all labor, supplies, material, plant, equipment, if required, and all personnel necessary to perform a cultural resource survey of ten proposed detention areas in the Harding Ditch Area, St. Clair County, Illinois, and furnish a written report thereon, all as set forth in this Appendix 1.

2. Location and Description of the Study Area. The project area is situated in the vicinity of the Harding Ditch near East St. Louis, St. Clair County, Illinois. It includes six separate proposed detention basins in the American Bottoms and four in the adjacent uplands. Survey limits are outlined on Map 1 (Encl 1). The total area to be physically surveyed consists of approximately 376 acres of selected locations. The following approximate acreage amounts should be surveyed within each area:

	<u>Name</u>	<u>Acreage</u>	<u>Enclosure</u>
1.	Canteen Creek Detention Area	60 acres	Map 1
2.	Caseyville Detention Area	22 acres	Map 1
3.	Between B & O RR and Black Lane Detention Area	20 acres	Map 1
4.	Between Forest Blvd. & I-64 Detention Area	78 acres	Map 1
5.	Schoenberger Creek Detention Area	18 acres	Map 1
6.	Canal #1 Detention Area	48 acres	Map 1
7.	Powdermill Creek Lake	26 acres	Map 1
8.	Schoenberger Creek Lake #1	50 acres	Map 1
9.	Schoenberger Creek Lake #2	12 acres	Map 1
10.	Little Canteen Creek Lake	42 acres	Map 1

3. Study Plan.

3.1 General. The Contractor is responsible for the formulation, justification, and conduct of the study to include the design and execution of all survey methods and procedures as well as the presentation of the study results, unless otherwise set forth in this Appendix 1, all to be included in a written report as set forth herein. The survey emphasis will be on identifying the maximum number of archaeological sites possible within each project area. Although the total acreage of the ten proposed detention areas discussed in paragraph 2 is approximately 1880 acres, the Contractor is to restrict his investigation to a 20 percent stratified sample of each area, which totals 376 acres, more or less. The 20 percent sample of each area will be designed in a manner to include areas of highest archaeological site potential in order to accomplish this goal. The areas to be selected for survey in the American Bottoms include point bars, colluvial slopes, natural levees and other elevated ridges. Upland areas to be surveyed will include cleared colluvial slopes, terraces or other elevated areas.

3.2 Method of Operation. The Contractor will complete the attached Method of Operation form (Encl 2) that will be submitted as an appendix to the request for quotation and conduct a cultural resource survey in the study area as defined in paragraph 2 above. The method of operation shall identify the techniques to be used to address the various requirements of the Scope of Work. Detailed vitae attachments outlining the work histories and academic backgrounds of all individuals scheduled to be directly involved in the supervision of laboratory/fieldwork and report preparation will also be submitted with the request for quotation. One completed copy of the Contractor's proposal, including the method of operation form and price is to be postmarked for return to the Contracting Officer for review within 20 calendar days of receipt of the request for quotation.

3.3 Definitions

3.3.1 Cultural Resource Survey. A cultural resource survey is an intensive on-the-ground evaluation of an area sufficient to determine the number and extent of the resources present within that area. The cultural resource survey is to be conducted in selected areas within the areas marked on Map 1 (Encl 1). A random surface collection will be conducted on each site identified during this process.

3.3.2 Laboratory Analysis. Artifacts collected during survey activities will be washed and permanently labeled. These collections will be analyzed in an attempt to determine each site's temporal affiliation and horizontal surface distribution. All artifacts will be separated into various general categories and then subdivided into smaller functional and stylistic categories. These distributions shall be quantitatively assessed in a professional, concise manner.

3.3.3 Principal Investigator. The principal investigator is required to spend 10 percent of the total field time directly involved in the fieldwork. Adequate time will be devoted to the contract to accomplish the work in an expedient manner. He will be responsible for the validity of the material presented in the cultural resource report and will sign the final report. If authored by someone other than the principal investigator, he will prepare a forward in the final report. In the event of controversy or court challenge, the principal investigator will testify on behalf of the Government in support of the report findings. Persons in charge of an archaeological project or research investigation contract, in addition to meeting the appropriate standards for an archaeologist, should have recognized expertise in this field and must have a doctorate or an equivalent level of professional experience as evidenced by a publication record that demonstrates experience in field project formulation, execution, and technical monograph reporting. Suitable professional references may also be made available to obtain estimates regarding adequacy of prior work. If prior projects were of a sort not ordinarily resulting in a publishable report, a narrative should be included detailing the proposed project to the director's previous experience, along with references suitable to obtain opinions regarding the adequacy of this earlier work.

3.3.4 Archaeologist. The minimum formal qualifications for individuals practicing archaeology as a profession are a B.A. or B.S. degree from an accredited college or university, followed by two years of graduate study with concentration in anthropology and specialization in archaeology during one of these programs, and at least two summer field schools or their equivalent, under the supervision of archaeologists of recognized competence.

3.3.5 Consultants. Personnel hired or subcontracted for this special knowledge and expertise must carry academic and experiential qualifications in their own field of competence. Such qualifications are to be documented by means of vitae attachments to the proposal or at a later time if the consultant has not been retained at the time of the proposal.

3.3.6 Institution or Contract Firm. Any institution, organization, etc., obtaining this contract and sponsoring the principal investigator or project director meeting the previously given requirements must also provide or demonstrate access to the following capabilities:

(1) Adequate field and laboratory equipment necessary to conduct whatever operations are defined in the scope of work.

(2) The institution will provide for storage and retrieval facilities for perpetual curation for all artifacts, specimens, records, and other documents of the cultural resource survey performed under this contract. The location of these materials will be stated in the report of this work, and the Contractor will indicate how such materials and records can be made available to other professionals who may have a need for data derived from the work conducted under this contract. All boxes containing artifacts collected during these activities will be marked: PROPERTY OF U.S. GOVERNMENT, ST. LOUIS DISTRICT, CORPS OF ENGINEERS.

3.4 Final Report. The Contractor will prepare a written report which describes in detail data collection techniques used, as well as an explanation of the rationale for their use. The final report will consist of a summary of the results of the previously completed background and literature search, as well as the detailed findings of the survey. It will include a photographic log of each phase of work as outlined in this Appendix 1. Thirty-five millimeter slides are required for this documentation. U.T.M. coordinates of each site identified will be presented as part of the overall site description. The report will contain an abstract not to exceed one typewritten page. Completed state site forms will be submitted for each site identified during these investigations. A random surface collection will be conducted on each site identified during the pedestrian survey. These collections should attempt to determine each site's temporal affiliation and horizontal surface distribution. The report will include maps which accurately define site locations, site numbers, areas surveyed, and groundcover conditions, as well as any other relevant data pertaining to this resource. Plates/drawings of diagnostic artifacts will be incorporated into the body of the final report or attached as an appendix. A full set of reproducible copies of all maps, plates, and drawings will be included in Appendix 1 in the final report. Survey information such as groundcover, areas surveyed, and surface distributions should be clearly illustrated on appropriate USGS quadrangle maps, scale 1:24000. Hand lettering will not be accepted within the body of this report other than that necessary to record data on base maps. Oversize maps will be folded and included in a pocket in the back of the appropriate section of the report or Appendix 1 thereof. Specific locations of sites found or otherwise identified as a result of investigations under this contract that might be subject to vandalism are to be submitted by the Contractor as a separate document, enclosed in a manila envelope attached to the rear cover of the final report and marked "Not for Submission to NTIS."

4. Protection of Natural and Historic Features. The Contractor will be responsible for all damages to persons and property which occur in connection with the work and services under this contract without recourse against the Government.

The Contractor will provide the maximum protection, take every reasonable means, and exercise care to prevent damage to existing historic structures, roads, utilities, and other public or private facilities.

5. Property Damage. The Contractor will restore to the satisfaction of the Government's representative, at no additional cost to the Government, any damage to any Government or private property.

6. Publicity. The Contractor will not release any materials for publicity without the prior written approval of the Government representative. This provision will not be construed so as to restrict in any way the Contractor's right to publish in scholarly or academic journals. Students and other archaeologists are likewise free to use information developed under this contract in theses and dissertations or in publications in scholarly or academic journals.

7. Permits and Right of Entry. The Contractor is required to secure the right of entry upon the worksite for performance of work under this contract. The Contractor will obtain the necessary approval to enter on any private property and to permanently remove any artifacts recovered during subsequent survey activities. Should access to certain portions of the project area referenced in paragraph 2 above be denied, the actual amount of the purchase order as indicated in Block 25, Form DD 1155, will be decreased in an amount equal to the percentage of difference between the original required acreage and that acreage actually surveyed.

8. Field Conditions. The majority of acreage within the project areas is presently cropped in immature beans, corn, or wheat. Ground visibility should be good in the corn and beans but poor in the wheat.

9. Investigation of Field Conditions. Representatives of the Contractor are urged to visit the areas where work is being performed and by their own investigation satisfy themselves as to the existing conditions affecting the work to be done. Any prospective contractors (including subcontractors) who choose not to visit the area will nevertheless be charged with knowledge of conditions which a reasonable inspection would have disclosed. The Contractor will assume all responsibility for deductions and conclusions as to the difficulties in performing the work under this contract.

10. Inspection and Coordination. Government representatives may at any reasonable time inspect and evaluate the work being performed hereunder and the property on which it is being performed. If any inspection or evaluation is made by the Government on the property of the Contractor or any subcontractor, the Contractor will provide and will require his subcontractor to provide all reasonable facilities and assistance for the safety and convenience of the Government representatives. All inspections and evaluations will be performed in such a manner as will not unduly delay the work. Close coordination will be maintained between the Contractor's principal investigator and the Government representative to ensure that the Government's best interest is served.

11. Responsibility for Materials and Related Data. Except as otherwise provided in this contract, the Contractor will be responsible for all written materials and related data generated by this contract until they are delivered to the Government at the designated delivery point and prior to acceptance by the Government. The designated delivery point is 210 Tucker Boulevard North, Room 1138, St. Louis, Missouri 63101, ATTN: Mr. Terry Norris (ED-BA).

12. Schedule of Work

12.1 Fieldwork. All fieldwork related to this work item will be completed on or before 31 May 1982.

12.2 Draft Report. Five copies of the draft report will be submitted by the Contractor to the Government representative within 120 calendar days after the notice to proceed on or about 31 July 1982. The Government representative will review the report for compliance with the requirements of the contract and will return the preliminary report, together with any written comments he may have thereon which may require changes in the report, to the Contractor within 35 calendar days after its receipt. The report will be organized in a manner consistent with the St. Louis District report format guidelines (Encl 2).

12.3 Final Report. The Contractor will submit 30 copies of the final report, including the original copy signed by the principal investigator, to the Government within 185 calendar days after receipt of the written notice to proceed on or about 1 November 1982. A set of reproducibles of all drawings, plates, and other graphics, including site forms, will be furnished at the time of submission of the final report.

12.4 Provisions for Payment. Assuming that all requirements of the Scope have been fulfilled, two equal payments will be made on this order. The first payment will be made upon receipt of the draft report and the last payment upon acceptance of the final report.

13. Delays. In the event these schedules are exceeded due to causes beyond the control and without the fault or negligence of the Contractor, this work order will be modified in writing, and the contract completion date will be extended one calendar day for each calendar day of delay.

2 Enclosures

1. Project Map
2. Method of Operation Form
3. Exhibit 2 - SLD Report Format Guidelines

GUIDELINES FOR CULTURAL RESOURCE SURVEY REPORTS

The following report format is intended to serve as a guide, outlining the type of information which should be included in a cultural resource assessment report. Every contract cultural resources report must contain as a minimum the following section or component:

Title Page
Abstract
Introduction
Scope of Work (if applicable)
Environmental Setting
Survey Methodology
Survey Results
Statement of Significance
Statement of Impact
Recommendations
References

*Appropriate Appendices and Maps
(U.S.G.S. 7 1/2 or 15 Min. and Project Map)

*At a minimum the following detailed information must be included in this section: U.S.G.S. 7 1/2 or 15 min. maps (if available) and project maps indicating all areas in which actual on-the-ground inspections were conducted and the exact location of site(s) in relation to the project. Vegetational cover and other relative information can also be included on these maps. For archeological sites, copies of any available site records which were filed for the site.

Detailed locational information can be included as an appendix in the report. This data should be deleted from any report subject to public dissemination but must be provided in the copy which the St. Louis District reviews. Appropriate arrangements should be made with the contractor to assure protection of this information but allow its use as a planning tool.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

The above numbered Order (DACW43-82-M-2044) is hereby modified to reflect the following change:

Completion date (Block 10) shall read 1 May 1983.

APPENDIX 2

PROJECT FORMS

CAHOKIA CANAL AND HARDING DITCH SURVEYS
LAND CLEARANCE FORM

Parcel Number _____ Date _____

Parcel Designation _____ Recorder _____

Owner _____

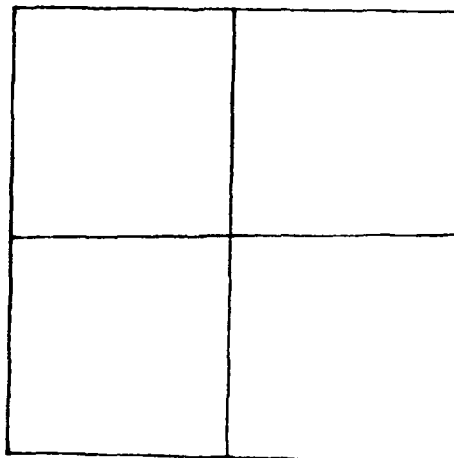
Tenant _____

Permission: _____ Granted _____ Denied

Restrictions (if any) _____

Remarks _____

Indicate lands for which access was granted or denied and ground cover conditions
on the 640 acre sketch map provided below.

_____ acres in the _____ $\frac{1}{4}$ _____ $\frac{1}{4}$ Sec. _____

CAHOKIA CANAL AND HARDING DITCH SURVEYS
FIELD WALKOVER REPORT

Parcel Number _____ Date of Walkover _____

Parcel Designation _____ Participants _____

Owner(s) _____

Recorder _____

Tenant(s) _____ Initial Coverage Interval _____ meters

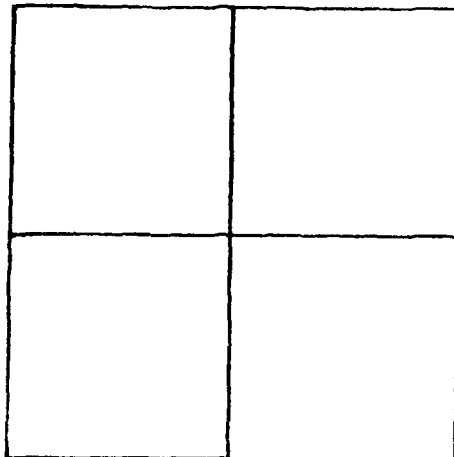
Ground Cover, Surface Preparation, Surface Wash, and Visibility Range (%) _____

Field Numbers of Sites Located _____

Remarks _____

Indicate field area covered on the 640acre sketch map provided below and on aerial photo.

_____ acres in the _____ $\frac{1}{4}$ _____ $\frac{1}{4}$ Sec. _____



CAHOKIA CANAL AND HARDING DITCH SURVEYS
SITE SURVEY FORM

Parcel Number _____ Date of Survey _____
Parcel Designation _____ Participants _____
Site Field Number _____
IAS Number 11-S- Recorder _____
Revisit: Yes No Estimated Area of Scatter x meters
Initial Coverage Interval meters Collection Interval meters
Visibility Range (%) Density Range Estimate (x/m^2)
Number of Bags Collected _____
Materials Observed _____

Which Materials, If Any, Were Not Collected? _____

Describe Any Features Observed _____

(over)

Ground Cover, Surface Preparation, and Surface Wash _____

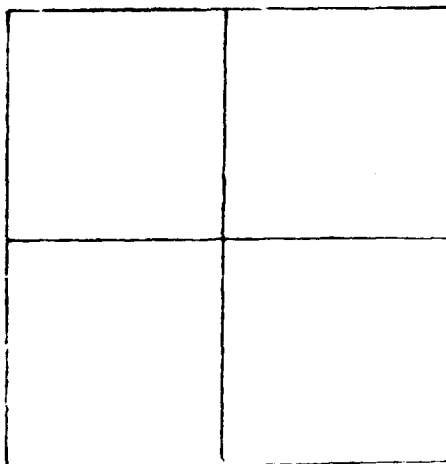
Site Topographic Position _____

Modern Disturbance to Site Area _____

Photographs (Include Roll and Frame #s) _____

Indicate site area on the 640 acre sketch map provided below and on aerial photo.

____ $\frac{1}{4}$ ____ $\frac{1}{4}$ Sec. ____



NOTE: Use a Continuation Sheet for any additional remarks. Also, be certain to record the site area on the appropriate USGS Quadrangle sheet.

NOT FOR SUBMISSION TO NTIS

APPENDIX 3

SITE DESCRIPTIONS

S-44 C. Tunnel Site

UTM: none recorded

The C. Tunnel site was originally reported to the IAS by C. Tunnel in 1961. Denny's Harding Ditch survey in 1973 visited the Spring Lake area and recorded a site in the approximate location of S-44, but there is some confusion whether S-44 or S-45, located 1000 feet to the west, was revisited. Tunnel recorded S-44 as occupying a low rise adjacent to an old slough (Spring Lake Meander Scar); he also stated that the farmer was planning to level this area in his field. Brandt revisited the site, apparently in 1977, and collected one projectile point, 19 chert, one rock, and six sherds (Late Bluff/Mississippian). Brandt also reported that the landowner, Mr. Frank Hytla, had leveled the area, and had told Brandt the low rise was a mound and that there was a burned house floor at its base with material.

The present survey could not revisit the site because the area was planted in wheat and standing water was in a portion of the field; also, a large drainage ditch was put through the reported site location. At present, confusion still surrounds the exact location of the site and whether it has been destroyed in whole or in part. The probable site area should definitely be resurveyed in order to establish its limits and the extent of modern disturbance. If the site was a mound, it could very well be a part of the Cahokia site complex, for the present southern boundary of Cahokia is less than 50 feet to the north.

S-45 Forest Blvd. SiteUTM: ~~EE 18 1000~~

The Forest Blvd. site is located on a low ridge which occupies the northwest side of the Spring Lake Meander Scar. Only the eastern edge of the site extends into parcel No. 10. The site area within the parcel ranges in elevation from 410-415 feet MSL, and the soil type is a Darwin-variant silty clay. The modern land use is agriculture.

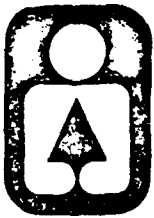
When the site was visited, it was planted in corn and wheat, while a small portion was covered with weeds and standing water. The corn field had good splash erosion and a visibility range of 50-80%. Numerous chert flakes, hoe flakes, and small Late Bluff and Mississippian sherds were observed; a selective sample was collected. All of the Late Woodland and Mississippian ceramics and hoe flakes were concentrated in an approximately one acre area, just outside the parcel boundaries.

The site was first recorded by Harn in 1961 as part of the Spring Lake site, which was redefined and divided by Brandt in 1972. Brandt's revisit to the site recovered primarily Late Woodland and Mississippian materials, which correspond closely with the materials observed and collected by the present survey.

NOT FOR SUBMISSION TO NTIS

APPENDIX 4

State of Illinois Survey Forms



DEPARTMENT OF CONSERVATION

State of Illinois Survey Form

County St. Clair

Survey # S-45

Quadrangle (15 71/2)

Instit. # SIUE 10-1

10,

Sec. 11, Twp. 2N Range 9W 1/4 sec.

Sec. 10: S $\frac{1}{2}$, SE $\frac{1}{4}$, SE $\frac{1}{4}$

15

Sec. 11: NW $\frac{1}{4}$, SW $\frac{1}{4}$; W $\frac{1}{2}$, NE $\frac{1}{4}$, SW $\frac{1}{4}$;

Site Name Forest Blvd. Site (Revisit)

N $\frac{1}{2}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$ Sec. 15: N $\frac{1}{2}$, NE $\frac{1}{4}$, NE $\frac{1}{4}$

UTM Zone 15

Easting 754975

Northing 4280000

Site owner and address

Charles Hytta

Late Woodland,

Cultural affiliation Mississippian Site type Unknown

Ground cover Corn

Visibility (%) 50-90%

Topography Low bottomland ridge

Size of site (N-S, E-W) 925 x 1000 m

Surface collection yes no Testing (specify type) none

Date recorded 30 May 1982

Person reporting Brad Koldehoff

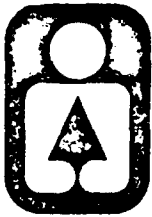
Survey project name Cultural Resource Survey of Ten Proposed Dry Detention Areas
in the Harding Ditch Area of St. Clair County, Illinois

Where is material curated? SIUE

Material collected from site

2 endscrapers
2 utilized flakes
10 hoe flakes
4 hoe fragments
7 cores
10 chert flakes

Mississippian-Late Woodland ceramics:
1 red slipped, shell tempered body sherd
1 eroded surface, shell tempered body sherd
1 red slipped, grog tempered rimsherd
2 red slipped, grog tempered body sherds
7 cordmarked, grog tempered body sherds
8 plain, grog tempered body sherds.



DEPARTMENT OF CONSERVATION

State of Illinois Survey Form

County St. Clair

Survey # S-72

Quadrangle (15 71/2) French Village Instit. # SIUE 10-2

Sec. 14 Twp. 2N Range 9W 1/4 sec. SW1/4, SW 1/4, NE1/4; E 1/2, SE 1/4, NW 1/4

Site Name Rolle Site (Revisit)

UTM Zone 15

Easting 755550

Northing 4278875

Site owner and address

Alvin Weissert

Cultural affiliation Late Woodland
Mississippian Site type Unknown

Ground cover Corn and Wheat Visibility (%) 40-60%

Topography Low bottomland ridge

Size of site (N-S, E-W) 425 x 350 m

Surface collection yes no Testing (specify type) None

Date recorded 30 May 82

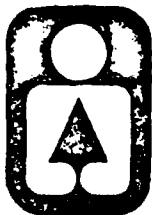
Person reporting Brad Koldehoff

Survey project name A Cultural Resource Survey of Ten Proposed Dry Detention Areas
in the Harding Ditch Area of St. Clair County, Illinois

Where is material curated? NA

Material collected from site

None



DEPARTMENT OF CONSERVATION

State of Illinois Survey Form

County St. Clair

Survey # S-316

Quadrangle (15 71/2) Monks Mound

Instit. # SIUE 10-4

Sec. 11, Twp. 2N Range 9W 1/4 sec. Sec. 11: W 1/2, SW 1/4, SE 1/4; SE 1/4, SE 1/4, SW 1/4

Site Name

Sec. 14: N 1/2, NW 1/4

Sec. 15: S 1/2, NE 1/4, NE 1/4; N 1/2, SE 1/4, NE 1/4

UTM Zone 15

Easting 754950

Northing 4279325

Site owner and address

Alvin Weissert

Cultural affiliation Archaic

Site type Unknown

Ground cover Plowed, corn,
horseradish

Visibility (%) 50-100%

Topography Level bottomland at outer bank of Spring Lake Meander Scar

Size of site (N-S, E-W) 1200 x 800 m

Surface collection yes no Testing (specify type) None

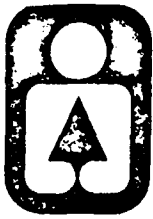
Date recorded 30 May 82

Person reporting Brad Koldehoff

Survey project name A Cultural Resource Survey of Ten Proposed Dry Detention Areas
in the Harding Ditch Area of St. Clair County, Illinois

Where is material curated? NA

Material collected from site



DEPARTMENT OF CONSERVATION

State of Illinois Survey Form

County St. Clair

Survey # S-429

Quadrangle (15 71/2) Monks Mound

Instit. # SIUE 7-1, 2, 3

Sec. 6 Twp. 2N Range 8W 1/4 sec. NE 1/4, SW 1/4; NW 1/4, SE 1/4; SE 1/4, NW 1/4;
SW 1/4, NE 1/4

Site Name Old Canteen Creek Site

UTM Zone 15

Easting 758525

Northing 4281925

Site owner and address

Robert Keller, M. Baldus, Herb Meyer, M. Feig

Cultural affiliation Late Woodland, Site type Unknown
Mississippian

Ground cover Plowed, beans, corn Visibility (%) 80-90%

Topography Level portion of Peyton Colluvium

Size of site (N-S,E-W) 675 x 675 m

Surface collection yes no Testing (specify type) NA

Date recorded 10 June 82

Person reporting Christy Wells

Survey project name A Cultural Resource Survey of ten Proposed Dry Detention Areas
in the Harding Ditch Area of St. Clair County, Illinois

Where is material curated? SIUE

Material collected from site

5 chert flakes

1 utilized flake



DEPARTMENT OF CONSERVATION

State of Illinois Survey Form

County St. Clair

Survey # S-460

Quadrangle (15 71/2) Monks Mound

Instit. # SIUE 9-1, 2, 3

Sec. 12 Twp. 2N Range 9W 1/4 sec. NW 1/4, NE 1/4

Site Name Thereon Site

UTM Zone 15

Easting 757225

Northing 428200

Site owner and address

William Arbeiter

Cultural affiliation Middle Archaic, Site type Unknown

Late Woodland

Ground cover Plowed, corn

Visibility (%) 95-100%

Topography Level area between Spring Lake and Crooked Lake Meander Scar

Size of site (N-S,E-W) 250 x 350 m

Surface collection yes no Testing (specify type) NA

Date recorded 10 June 82

Person reporting Christy Wells

Survey project name A Cultural Resource Survey of Ten Proposed Dry Detention Areas
in the Harding Ditch Area of St. Clair County, Illinois

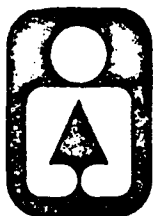
Where is material curated? SIUE

Material collected from site

3 flakes

1 utilized flake

1 core



DEPARTMENT OF CONSERVATION

State of Illinois Survey Form

County St. Clair

Survey # S-465

Quadrangle (15 71/2) French Village Instit. # SIUE 10-3

Sec. 14 Twp. 2N Range 9W 1/4 sec. NW $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$, NW $\frac{1}{4}$

Site Name Olszewski Site

UTM Zone 15

Easting 755175

Northing 4278900

Site owner and address

Alvin Weissert

Cultural affiliation Late Archaic, Late Woodland, Mississippian Site type Village

Ground cover plowed, beans, corn Visibility (%) 50-100%

Topography point bar ridge of the Bullfrog Station Meander Scar

Size of site (N-S, E-W) 300 x 425 m

Surface collection yes no Testing (specify type) NA

Date recorded 30 May 1982

Person reporting Brad Koldehoff

Survey project name A Cultural Resource Survey of Ten Proposed Dry Detention
Areas in the Harding Ditch Area of St. Clair County, Illinois
Where is material curated? SIUE

Material collected from site

Unit 10-3-A

Pottery

1 eroded surface, limestone tempered body sherd

1 eroded surface, grog tempered body sherd

Chert

1 micro-drill, Crescent Hills

1 micro-drill core, Crescent Hills

1 perforator on a flake, Crescent Hills

3 utilized flakes, Crescent Hills

1 hoe fragment, Mill Creek

3 hoe flakes, Mill Creek

1 flake, Crescent Hills

S-465
page 2

Unit 10-3-B

Pottery

- 1 red slipped, limestone tempered rim sherd
- 1 red slipped, shell tempered rim sherd
- 1 black polished, shell tempered rim sherd
- 2 black polished, shell tempered body sherds
- 2 red slipped, shell tempered body sherds
- 3 cordmarked, grit tempered body sherds
- 1 red polished, grog tempered body sherd
- 3 plain, grog tempered body sherds
- 4 cordmarked, grog tempered body sherds

Chert

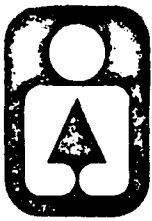
- 1 flake point, Crescent Hills
- 1 biface fragment, Kaolin
- 1 denticulate, Crescent Hills
- 1 end scraper, Crescent Hills
- 4 utilized flakes, Crescent Hills
- 1 retouch flake, Crescent Hills
- 1 retouch flake, Kaolin
- 1 gouge, Crescent Hills
- 1 flake, Kaolin
- 3 flakes, Crescent Hills
- 3 cores, Crescent Hills
- 1 core, glacial till chert
- 5 hoe fragments, Mill Creek
- 12 hoe flakes, Mill Creek
- 2 hoe flakes, Kaolin

Other

- 1 burnt clay fragment
- 1 rock quartz crystal flake
- 1 sandstone slot abrader

Unit 10-3-C

- 1 Merom projectile point fragment, Crescent Hills
- 1 drill
- 3 utilized flakes, Crescent Hills
- 5 flakes, Crescent Hills
- 1 flake, Salem
- 2 block shatter, Crescent Hills
- 1 core, glacial till



DEPARTMENT OF CONSERVATION

State of Illinois Survey Form

County St. Clair

Survey # S-724

Quadrangle (15 71/2) French Village Instit. # SIUE 16-1

Sec. 17 Twp. 1N Range 9W 1/4 sec. NW 1/4, NE 1/4; NW 1/4

Site Name Vole Site

UTM Zone 15

Easting 750775

Northing 4269700

Site owner and address

Charles Winheim

Cultural affiliation Early Woodland, Site type Unknown
Late Woodland, Mississippian

Ground cover beans Visibility (%) 90%

Topography Colluvial slope at base of bluff

Size of site (N-S, E-W) 50 x 125 m

Surface collection yes no Testing (specify type) NA

Date recorded 15 June 82

Person reporting Brad Koldehoff

Survey project name A Cultural Resource Survey of Ten Proposed Dry Detention Areas
in the Harding Ditch Area of St. Clair County, Illinois

Where is material curated? SIUE

Material collected from site

- 3 manos, sandstone fragments
- 1 Red Ochre cache blade (Crescent Hills chert)
- 1 polished flake from gouge (Crescent Hills)
- 1 utilized flake (Crescent Hills)
- 12 flakes (Crescent Hills)
- 3 flakes (unidentified chert)
- 3 block shatter (unidentified chert type)
- 1 block shatter (Ste. Genevieve chert)
- 1 block shatter (Crescent Hills)
- Mississippian Ceramics:
- 2 red slipped, limestone sherds
- Late Woodland:
- 2 grit tempered sherds
- 1 plain grit tempered sherd
- 1 cordmarked grit tempered sherd

Early Woodland:
3 Marion Thick sherds

Appendix 5

Notes on Glacial Chert Availability and Quality

During the Pleistocene thick deposits of glacial till and wind-blown silt (loess) were laid down in St. Clair County. The loess deposits are primarily Wisconsinan in age and cap the bluffs and uplands with often in excess of 50 feet of sediment. Underlying the loess is the glacial till which is predominantly Illinoian in age and belongs to the Glasford Formation. The till is commonly exposed where streams or modern human earthmoving activities have removed or cut through the loess.

All upland parcels (Nos. 5-6, 8-9) in the Harding Ditch study area are situated on the bluff edge and adjacent uplands. These areas are characterized by highly dissected stream courses and steep slopes. Glacial till exposures were observed in all parcels except No. 5, Schoenberger Creek Lake #1. Parcel No. 9, Powder Mill Creek Lake, contained glacial till deposits, but only fine sediments (i.e. sand, silt, and clay) and pebbles were observed. Schoenberger Creek Lake #2, Parcel No. 6, contained several till exposures; however, chert cobbles were generally small and occurred infrequently. Only four cobbles were observed that were suitable for flint knapping or use as chert hammerstones.

Little Canteen Creek Lake, Parcel No. 8, exhibited the greatest availability of chert cobbles. The heaviest concentrations occurred in the two southernmost branches of the creek in the parcel (Figure 5). In these two branches the glacial till commonly formed the creek bed and was composed primarily of sand, silts, clays, and pebbles, with larger erratics occurring sporadically. Chert cobbles were found in situ in the glacial till or in small concentrations on gravel and sand bars in the creek. Chert cobbles represented approximately 20-30% of the erratics, while the remaining materials were predominately igneous (e.g. granites, diabases, and diorites) and metamorphic (e.g. quartzite), although a few pieces of limestone and sandstone were observed. Chert cobbles and other erratics, for the most part, did not occur in the main channel of Little Canteen Creek. Their paucity in the main channel can be explained by three factors: stream velocity, heavy sediment load, and recent alluvial deposits. The main channel is filled with recent alluvium; thus, few exposures of glacial till occur. Furthermore, stream velocity is lower in the main channel as compared to the small branches, which have steeper gradients; thus cobbles are not readily transported in the main channel. When cobbles reach the main channel they would tend to sink and be buried by finer sediments. These factors may explain why heavier concentrations of glacial cobbles were not observed in other parcels, for in most cases not all small branches were walked.

From the two southernmost branches of Little Canteen Creek 9.9 kg of chert cobbles were collected. The sampling criteria used was that basically all large cobbles that were observed would be collected, while a somewhat arbitrary sampling of smaller cobbles was made in an attempt to collect specimens expressing the full range of color, texture, and knapping quality. Flakes were detached from cobbles in the field to determine these properties.

The chert cobbles collected ranged in weight from 7.3 g to 2,080 g, with the mean being 92.3 g. Ten cobbles fall within the 1,000 g to 2,000 g range and

these represent the largest cobbles available in Little Canteen Creek. The smallest chert cobbles available weighed only a few grams and were not collected.

The knapping quality of chert is closely related to its texture, structure, and number and type of inclusions. The majority of the cobbles collected exhibit moderate knapping qualities, their texture was generally grainy, and fossil inclusions filled with quartz are common. Three large cobbles and several smaller ones exhibit excellent quality; they have a fine grain-cryptocrystalline structure, smooth texture, and no inclusions. All of these cobbles fall into chert type No. 1.

The chert cobbles collected can be separated into three types on the basis of color, texture, and inclusions. These same types have been previously identified and described by Koldehoff (1981). The first type exhibits properties which are nearly identical to chert of the Burlington Limestone Formation. This type possesses the best flaking quality, although fossil inclusions are common. The cortex of type No. 1 ranges in color from reddish brown (5YR5/4) to yellowish brown (10YR6/8 & 4/6) and greyish white (5YR8/1, 5Y8/1). The chert itself occurs in a variety of shades of greyish white (5YR8/1, 7.5YR8/0 & 6/0, 10YR7/2).

The second chert type is only represented by five cobbles. Its texture is grainy and it exhibits a variety of shades of grey and green (10YR5/1 & 8/1, 5Y5/4) which usually occur in bands or mottles. The third chert type is a catchall for an assortment of exotic cherts. Only a few cobbles are contained in this type.

Summary

From the areas sampled within the upland parcels, we can see that chert cobbles occur sporadically in the glacial till. The heaviest concentrations were located in two small branches of Little Canteen Creek, while large glacial cobbles or erratics rarely occurred in the main channel of any major creek. The majority of the chert cobbles collected possessed moderate knapping quality and closely resembled Burlington chert. The average cobble weight was approximately 90 g, and this generally small size greatly restricts how these cobbles could be utilized in the production of chipped-stone tools. From other surveys in St. Clair and Madison Counties it has been observed that glacial cherts commonly occur on archaeological sites as chert hammers, cores, flake tools, and occasionally projectile points and other bifaces.

Although glacial cherts occur sporadically, they represent an important aboriginal lithic source. Except for extreme southern St. Clair and northern Madison Counties, no other chert sources have been located that would have been available prehistorically. However, one must consider how recent siltation and down-cutting of streams has affected our view of glacial chert availability. It must also be remembered that glacial till deposits contain other raw materials which would have been important to aboriginal populations: igneous and metamorphic rocks suitable for manos, metates, heat retention, and axes and other ground stone tools and ornaments, plus clay for ceramics.